

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy Dwyer, Technical Director
FROM: Wayne Andrews and David Kupferer, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending December 9, 2011

Staff member Rory Rauch was in Oak Ridge this week to augment site representative coverage.

Conduct of Operations/Criticality Safety/Building 9212 Operations. On Monday, a YSO Facility Representative in Building 9212 discovered a green salt can that was stored on a chip dolly in violation of the posted criticality safety requirements. Specifically, the criticality safety posting that was affixed to the chip dolly included a restriction limiting the dolly to storage of hospital cans with no allowance for green salt cans. B&W promptly reported this event using its Initial Event Information report process. In discussions with production management, the site representatives were informed that the operator who made the storage error acknowledged that he did not review the criticality safety postings prior to storing the green salt cans on the chip dolly because he assumed he already understood the applicable criticality safety requirements.

ORNL Building 3019/Uranium-233 Disposition. DOE-ORO concluded its readiness assessment (RA) this week (see the 12/2/11 report). The purpose of this RA was to confirm readiness for Isotek to begin retrieving, inspecting, overpacking, and shipping Zero Power Reactor (ZPR) plates to the Nevada Nuclear Security Site. The RA team concluded that (a) Isotek demonstrated readiness to safely conduct these activities contingent upon addressing the pre-start findings identified by the RA team and (b) DOE-ORO is ready to perform adequate oversight of these activities. The RA team identified two pre-start findings and one post-start finding. The two pre-start findings were related to (1) inadequate implementation of the Unreviewed Safety Question Process and (2) inadequate execution of independent verification requirements. Identification of the post-start finding led Isotek to declare a Potential Inadequacy in the Safety Analysis (PISA) during the RA. The basis for the PISA is that the Documented Safety Analysis overstates the calculated safety margin (i.e., 20%) associated with specific crane lifts. Isotek issued a standing order to suspend performance of the effected crane operations. The RA team plans to issue its report next week. Isotek plans to execute the first shipment of ZPR plates to Nevada Nuclear Security Site by the end of this calendar year.

Criticality Safety. In 2010, B&W revised and issued four 'upgraded' Criticality Safety Evaluations (CSEs) associated with wet chemistry operations in Building 9212 (see the 9/17/10 and 10/29/10 reports). This year, B&W revised and issued ten upgraded CSEs associated with various operations in Buildings 9204-2E and 9212. B&W is currently planning to upgrade nine CSEs during 2012.

Building 9202 Operations. This week, the site representatives observed technology development personnel open, sample, and repackage a five-gallon container of material labeled Niobium Hydride (NbH) that was discovered in Building 9204-2 earlier this year (see the 3/11/11 and 5/27/11 reports). B&W divided the material into multiple smaller containers, one of which will be shipped to an onsite laboratory for chemical analysis.